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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/538,819	06/13/2005	Yoshitsugu Morita	71051-010	5680

27305 7590 11/15/2007  
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EXAMINER
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LOEWE, ROBERT S

ART UNIT	PAPER NUMBER
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1796

MAIL DATE	DELIVERY MODE
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11/15/2007

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

## Office Action Summary

Application No.

10/538,819

Applicant(s)

MORITA ET AL.

Examiner

Robert Loewe

Art Unit

1796

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 19 October 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

## DETAILED ACTION

### *Claim Rejections - 35 USC § 103*

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-6, and 9-20 are rejected under 35 U.S.C. 103(a) as being obvious over Morita et al. (US Pat. 5,945,471; herein referred to as reference '471) in view of Regan (US Pat. 5,472,493).

Claim 1: Reference '471 et al. teaches a composite cured silicone powder having an average particle size of 0.1 to 500 microns (1:57-62). Reference '471 et al. further teaches an inorganic powder coated on the surface of the cured silicone powder (1:66-2:1). Reference '471 further teaches the preparation of cured silicone rubber powders from aqueous dispersions of polysiloxanes and polyoxyethylenenonylphenyl ether (reference examples 1-3) and further teaches mixing the cured silicone rubber powders with inorganic fine powders (application and comparison examples).

Reference '471 does not explicitly teach a surface-active agent which is coated to the inorganic fine powder. However, Regan teaches surface-active agents coated onto silica powders (abstract). Specifically, Regan teaches surfactant-modified silicas which are useful additives for aqueous coatings (14:54-56). Reference '471 and Regan are combinable because they are concerned with a similar technical difficulty, namely, silicas. At the time of invention, a

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person of ordinary skill in the art would have found it obvious to coat the silica particles as taught by reference '471 with a surfactant as taught by Regan and would have been motivated to do so since Regan teaches that the surfactant-modified silicas offer greater stability, dispersability, and prevention of settling (1:58-64 and 5:51-54) when compared to untreated silicas (14:50-56). The properties of greater stability, dispersability and anti-settling are all related to water-repellency, which is a main objective of reference '471 (abstract).

Claim 2: Reference '471 teaches mixing by means of mechanical shear (1:57-62).

Claim 3: Reference '471 teaches metal oxide inorganic micropowders (5:24-36).

Claim 4: Reference '471 teaches specific surface areas of not less than  $10 \text{ m}^2/\text{g}$  (5:42-43).

Claim 5: Reference '471 teaches silica as inorganic fine powder (5:26).

Claim 6: Reference '471 teaches silicone rubber powder (2:13).

Claims 9-12 and 20: Reference '471 teaches aqueous compositions comprising composite cured silicone powders (Table 1, water repellency and 5:6).

Claim 14: Reference '471 teaches methods of curing the silicone powder (2:14-18).

Claim 15: Reference '471 teaches a JIS A durometer hardness equal to or less than 90 (2:22-24).

Claim 16: Reference '471 teaches a silicone gel powder and a silicone resin powder (2:11-14).

Claim 17: Reference '471 teaches PDMS (polydimethylsiloxane) cured by addition reaction (3:62-67).

Claim 18: Reference '471 teaches non-crosslinking oils (2:25-3:30).

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Claim 19: Reference '471 teaches non-crosslinking silicone oils and non-crosslinking organic oils (2:25-3:30).

Claim 13 is rejected under 35 U.S.C. 103(a) as being unpatentable over reference '471 and Regan as applied to claim 1 above, and further in view of Morita et al. (US Pat. 5,387,624; herein referred to as reference '624).

Claim 13: Reference '471 and Regan collectively teach the composite cured silicone powder of instant claim 1 as described above. Reference '471 does not explicitly teach the relative particle diameters of the inorganic powder with respect to the cured silicone powder. However, reference '624 teaches metal oxide particles having diameters equal to or less than 1/10 that of the cured silicone powders (3:2-7). References '471 and '624 are combinable because they are concerned with a similar technical difficulty, namely, the preparation of cured silicone powders. Further, a person having ordinary skill in the art would have found it obvious at the time the invention was made to utilize the particle dimensions in the ratios taught by reference '624 in the composite cured silicone powders taught by Reference '471 and would have been motivated to do so since the '624 reference states that proper adjustment of particle diameters "affords a powder mixture with a particularly good flowability" (3:7-9).

Claims 7 and 8 are rejected under 35 U.S.C. 103(a) as being obvious over reference '471 in view of Regan.

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Reference '471 teaches a method for preparing a composite cured silicone powder comprising mixing components (A) and (B) of instant claim 1 under mechanical shear (1:57-62 and 5:44-58).

Reference '471 does not teach component (C) of instant claim 1. However, Regan teaches surface-active agents coated onto silica powders (abstract). Specifically, Regan teaches surfactant-modified silicas which are useful additives for aqueous coatings (14:54-56).

Reference '471 and Regan are combinable because they are concerned with a similar technical difficulty, namely, silicas. At the time of invention, a person of ordinary skill in the art would have found it obvious to coat the silica particles as taught by reference '471 with a surfactant as taught by Regan and would have been motivated to do so since Regan teaches that the surfactant-modified silicas offer greater stability, dispersability, and prevention of settling (1:58-64 and 5:51-54) when compared to untreated silicas (14:50-56). The properties of greater stability, dispersability and anti-settling are all related to water-repellency, which is a main objective of reference '471 (abstract).

### ***Response to Arguments***

Applicant's arguments with respect to claims 1-20 have been considered but are moot in view of the new ground(s) of rejection.

### ***Relevant Art Cited***

The prior art made of record and not relied upon but is relevant to Applicant's disclosure can be found on the attached PTO-892 form.

***Correspondence***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Robert Loewe whose telephone number is (571) 272-1197. The examiner can normally be reached on Monday through Friday from 7:30 AM to 5:00 PM EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mark Eashoo can be reached on (571) 272-1197. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

RSL  
30-Oct-07

  
**MARK EASHOO, PH.D.**  
**SUPERVISORY PATENT EXAMINER**

13/ Nov/07